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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,089	12/13/2001	Mohammad M. Ameen	SBA 3096	9982

7590

12/04/2002

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EXAMINER

LAM, THANH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/020,089

Applicant(s)  
Ameen et al.

Examiner  
Thanh Lam

Art Unit  
2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some\* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Khan.

Regarding claims 1,10, Khan discloses a disc drive storage system comprising: a housing (112) having a central axis, a stationary member (114) that is fixed with respect to the housing and coaxial with the central axis; a stator (152) fixed with respect to the housing; a rotatable member that is rotatable about the central axis with respect to the stationary member; a rotor (126) supported by the rotatable member and magnetically coupled to the stator; at least one data storage disc(108) attached to and coaxial with the rotatable member; an actuator supporting a head proximate to the data storage disc for communicating with the disc; and a hydrodynamic bearing (128) interconnecting the stationary member and the rotatable member, the bearing

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having at least one working surface comprising a wear resistant, low frictional coating (col. 2, lines 29-31).

Regarding claims 2 and 11, Khan discloses the wear resistant low frictional coating comprises amorphous carbon, diamond-like carbon, hydrogenated amorphous carbon, nitrogenated amorphous carbon, hydrogenated diamond-like carbon, nitrogenated diamond-like carbon and combinations thereof.

Regarding claims 3 and 13, Khan discloses the wear resistant low frictional coating comprises two or more layers.

Regarding claims 4 and 12, Khan discloses the wear resistant low frictional coating has a thickness in the range of about 100 nanometer to about 5 microns.

Regarding claims 5 and 14, Khan discloses the wear resistant low frictional coating is deposited by at least one of physical vapor deposition (PVD), chemical vapor deposition (CVD) and plasma enhance chemical vapor deposition (PECVD).

Regarding claims 6 and 15, Khan discloses the wear resistant coating is formed on an adhesive layer.

Regarding claims 7 and 16, Khan discloses the adhesive layer comprises chromium, silicon, titanium, zirconium, silicon carbide and combinations thereof.

Regarding claims 8 and 17, Khan discloses the adhesive layer has a thickness in the range of about 1 nanometer to about 1 micron.

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Regarding claims 9 and 18, Khan discloses the adhesive layer is deposited by at least one of physical vapor deposition (PVD), chemical vapor deposition (CVD) and plasma enhance chemical vapor deposition (PECVD).


Regarding claim 19, Khan discloses a motor, comprising: a hydrodynamic bearing interconnecting a stationary member and a rotatable member, wherein the hydrodynamic bearing has at least one working surface; and the at least one working surface has a wear reducing means thereon.

Regarding claim 20, Khan discloses the wear reducing means is formed on an adhesion means.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.

  
Thanh Lam

Patent Examiner